



Dworshak Fisheries Complex

Monthly Activity Report



June Highlights

Dworshak

SST BY16 1,477,447

SST BY16 Nursery-
1,052,014

SCS BY15 - 2,354,862

COS BY 15 - 419,310

Kooskia

BY 15 Chinook-
749,951 fry

SCS Trap Count-
1,396

Inside this issue:

Manager's Message	1
Dworshak Hatchery Production	2-3
Dworshak Meetings, Training, Conferences	4
Dworshak Maintenance & Operations	4-5
IFWCO Dworshak M & E	5
Aquatic Conservation	6
Fall Chinook Salmon Research Team	6-7
Idaho Fish Health Center	7
Kooskia NF Hatchery Headlines	8-9
Information & Education	10
Staff List	10

U.S. Fish & Wildlife Service, Region 1

Managers Message - Steve Rodgers

Volume 5 Issue 09



Credit: Olson, FWS

Good Job to the 2016 Fisheries Interns!

Although I've written about this before, I'd like to focus on a very positive program we are fortunate to participate in here at the Dworshak Complex. That program is the Nez Perce Tribal Intern Program, funded by the Nez Perce Tribe Local Education Fund, the Bureau of Indian Affairs Tribal Youth Initiative, and the Fish and Wildlife Service. Many of you are directly or indirectly involved with the interns, and you should feel good about the positive effect this program has in shaping the lives of young people.

This year we've employed eight interns within the Complex, which is double what we had just a few years ago. Tommy Williams (who also worked here in 2013), Tui Moliga II (whose dad is the Coho Project Evaluation Biologist), Esai Moses, Drew Terry, and Gerald Ellenwood are all working at Dworshak NFH in fish production. Justin Johnson is also at Dworshak, helping out as an intern for the Coho Project. At Kooskia NFH, Kaleb Oatman and Fletcher Penny are lending a hand. These young people are at various stages of their education, from attending junior high school to leaving for college soon. From feedback I've received and from my own observations, they are all doing a good job, with positive attitudes, respect and curiosity that make them a pleasure to work with. It goes without saying we would not be able to meet our mission without their contributions, and they're learning a lot along the way.

While working in the Complex, they will

experience a variety of fish culture work, from cleaning ponds to feeding fish and removing mortalities. They will help with adult salmon sorting, transport, spawning, and other work arranged through Intern Program Coordinator Mike Bisbee and the various supervisors the interns are assigned to. They may get brief introductions to information technology, hatchery maintenance, fish health work, research, fishery management, etc. Two of the interns are currently painting the System One digesters, which is a tough job in very hot weather. They did an outstanding job prepping and priming, and I expect they'll do excellent work laying down paint as well. All of these activities are important opportunities to learn, for both the intern and our employees who guide them.

In fact, intern programs are valuable in many ways. First, they provide a paycheck for young people ready to go to work. That paycheck may be saved for college tuition, or can help put food on the table for the family. Second, internships show kids about various career paths they can take to earn a living, right in their own back yard. Internships also illustrate the importance of finishing school; to empower our youth to qualify for and obtain jobs they enjoy and are fulfilled by. Finally, an internship places kids in a positive learning environment where they feel valued and productive, helping them to avoid the negative paths and activities many of our youth fall prey to.

I'd like to say good job to all of these young people...they've earned some recognition for a job well done. Hopefully, we'll see some of them down the road as our coworkers in fisheries management. I also want to thank all of you that help make their time here valuable. Mentoring and training young people requires effort, but it is always worth it. You are helping to shape a positive future for participants, which is important work. Our interns appreciate that, as does the Nez Perce Tribe and Fish and Wildlife Service.

Dworshak Hatchery Production - Izbicki, Sommer, Bisbee

Dworshak Stock - Spring Chinook Salmon (SCS)

Brood Year 2015 (BY15)

All BY 15 Chinook were ponded into single pass raceways on May 4-5, 2016. Small mesh screens were pulled early in June to increase the rearing space for the fry. By the end of the month there were 2,354,862 fry in 16 raceways. Fry averaged 415 FPP (fish per pound). Mortality averaged 0.6%. Mortality for the month has come down considerably from ponding. However, we are still seeing some drop out of fry that never buttoned up properly due to coagulated yolk, genetics, or from being on chilled water for too long. Overall, the fish health sample came back from the lab showing that the fish were showing zero bacteria, no viruses, and overall great health. All 16 ponds are being swept from stem to stern on Mondays and Thursdays, and daily scrubbing screens and sweeping excess food on the bottom of the pond out. There are four distinct PBT groups for BY 15 fry: Dworshak smolt production (1.7 M end of month), NPTHC Parr (207K end of month), NPTHC Lolo (156K end of month), and Selway Parr (304K end of month).

Coho Salmon (COS)

Brood Year 2015 (BY 15)

Coho were ponded in June. At the end of the month there were 419,310 fry in 37 tanks set into modified Burrow's ponds. Fry averaged 900 fpp and mortality averaged 23%.

Dworshak Stock- Summer Steelhead (SST)

Brood Year 2016 (BY 16)

Inventory and marking BY 16 SST outside to System 1 Burrow's Ponds (BPs) continued through June with takes 3-5 and take 7 being marked with adipose clips and Coded wire tags. Marking will continue through early August with a two week break from June 24 through July 10. The break will allow the later takes of fry to reach 150 FPP.

Once fry are marked and moved outside they remain on reservoir water until they are a minimum of 60 FPP. Takes 1 and 2 reached that mark in June and were split into Burrow's ponds in Systems 2 & 3, where they will remain until release next spring.

At the end of June there were 1,477,447 fry from takes 1-7 in System 1, 2, & 3 averaging 69 fpp; 1,052,014 fry in the Nursery from takes 8-10 averaging 303 fpp. Mortality in the Systems was 0.06%, and was 1.87% in the nursery.



Credit: Olson, FWS

Feed strainers in hand, Drew and Tui are ready for a day of feeding Spring Chinook fingerlings!



Credit: Olson, FWS

Clean fish are happy fish! Tui, Esai, Drew, and Joe are working hard to keep the raceways clean!



Credit: Olson, FWS

Justin Johnson learning to care for fingerlings with the Coho Project.



Credit: Olson, FWS

Summer hire Bethany and Intern Gerald are getting prepared to weigh out feed for the steelhead.

Dworshak Hatchery Production

(Continued from page 2)

SUMMARY

Table 1. Total Production - Fish on Station (6/30/16).

SP	BY	Location	Number	Wt (lbs)	FPP	L in	L mm
SCS BY 15	15	Raceways	2,354,862	5,680	415	2.0	51
COS BY 15	15	System III	419,310	466	900	1.5	37
SST BY 16	16	Nursery	1,052,014	4,072	303	2.3	58
SST BY 16	16	Systems	1,477,447	20,404	72	3.4	86
Total Fish/Fry on Station EOM			5,303,633	30,622			

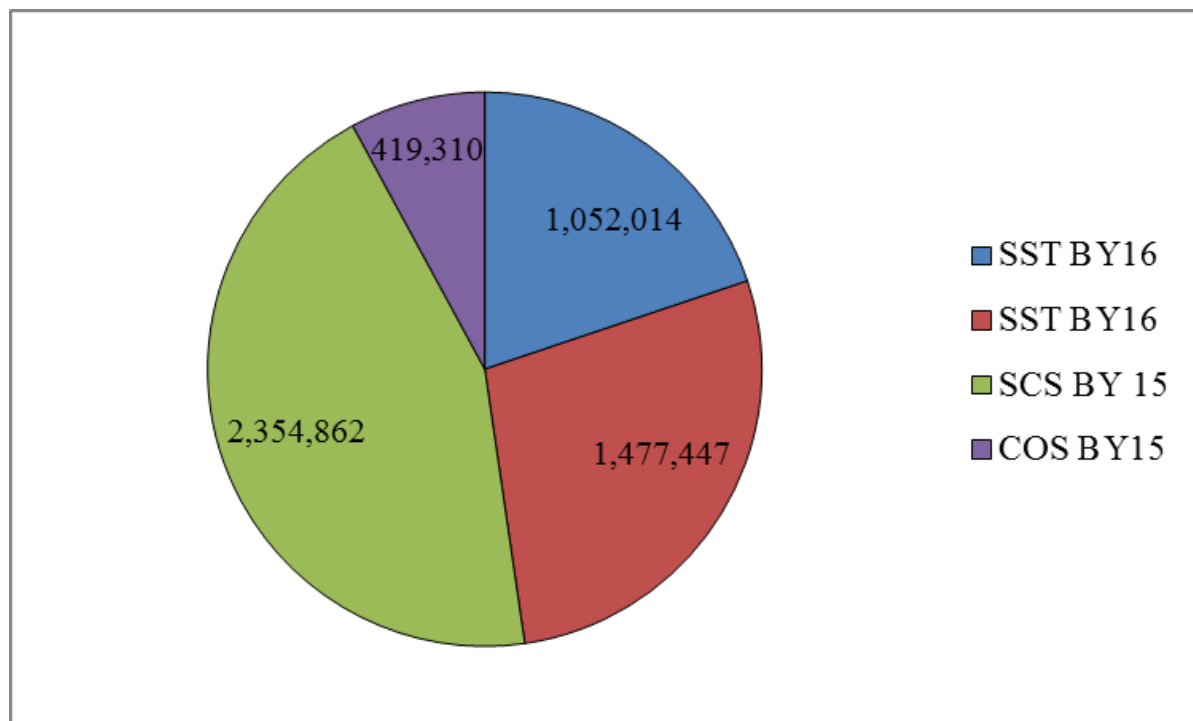


Figure 1. June 30, 2016 Total Fish/Eggs on Station.

Dworshak NFH Meetings, Training and Conferences - Drobish

On June 13th, Adam Izbicki started his detail as the Hatchery Manager at Spring Creek NFH. This detail will run through August 5th.

The annual Corps of Engineers property inventory was completed during the month.

Howard Schaller, Fisheries and Aquatic Conservation Fisheries Supervisor visited the Kooskia NFH and Dworshak Fisheries Complex on June 14th and 15th.

The last two-200 horsepower high efficiency propeller style pumps were received and installed by the maintenance crew during the month. Lucian Stewart, Corps of Engineers, conducted the energy use/energy efficiency testing on June 15th and the maintenance staff verified pump flow output. All criteria met or exceeded the pump specifications per the statement of work.

On July 28th, Roy Elicker, Assistant Regional Director (Fisheries), Julie Collins, Lower Snake River Compensation Plan (LSRCP) Coordinator and Mark Robertson, Fish and Wildlife Biologist (LSRCP) visited the Dworshak Fisheries Complex.

DNFH Maintenance and Operations Activity Report - Koehler

- Stop logs, main pump house were numbered, tagged and reinstalled in the storage area within the pump house.
- Fire ext. were mounted on several pieces equipment as required.
- Condensation drain was redesigned and repaired in feed storage building after it was damaged.
- We acquired a 25 plus year old John Deere lawn tractor and completed all needed maintenance and repairs to bring it back on line.
- Mixed cell plates had handle fabricated and installed as requested by production staff.
- Aluminum steps located at ponds 66 and 43 were repaired or replaced as needed.
- Vacuum pump in system 1 pump house was replaced.
- Replaced 35 pond screens in burrows ponds.

We have several statement of work written for much needed projects, like replacing 9 steel doors and frames, Airframe breaker testing, chiller pump replacement and Generator service.



Credit: Olson, FWS

Volunteer Cynthia Tewes teaches kids about the life cycle of an anadromous fish during the Hatchery in the Classroom steelhead release days at Spalding Park.



Credit: Olson, FWS

Volunteer Rod Campbell shows 5 kids how to play the role as a river for the game "Find Your Water Address"



Credit: Olson, FWS

Volunteer Alice Campbell reviews egg development with students participating in Hatchery in Classroom fish releases.

DNFH Maintenance and Operations Activity Report - Koehler

(Continued from page 4)

Maintenance has completed 38 out of 42 preventative maintenance work order for the month of June. The four not completed are out to bid and concern generator service. We also completed 12 work order requests by production staff.

Idaho Fish and Wildlife Conservation Office - Peery (Acting Project Leader)**Dworshak Complex Monitoring and Evaluation Team**

Chris Peery (APL) completed his detail in the regional office as the Fish Passage and Habitat Coordinator

Helped with sorting and tagging/PBT at Kooskia NFH as well as coordinating other PBT activities with IDFG.

Measured and weighed BY2016 steelhead going from the nursery to the ponds at Dworshak NFH.

Worked on 2016 spring Chinook salmon annual report.

Worked on report for the Rearing Density Evaluation Project.

The Hatchery Evaluation Team met to finalize recommendations to the Complex Manager on implementing policy for handling spring Chinook salmon adults having intact adipose fins during broodstock collection.

Participated in the RO Project Leaders and weekly Chinook Coordination calls

Revised FWCO work plans as requested by HQ

Finalized draft of Update to HET guidelines and procedures. Sent to RO for review.

Met with Howard Schaller during his tour of Dworshak Complex

Discussed LSRCP M&E plans with Rod Engle

Worked with Matt Campbell and Brett Bowersox IDFG to develop write-up on Dworshak steelhead genetics and spawning protocols.

Coordinating steelhead telemetry study with NPT and IDFG. Tagging is scheduled to start in July at Lower Granite Dam.

Worked with HR to finalized announcement for fish biologist position and working with HR to hire fish technician through VRA.

EEO and Diversity Training

Griff attending coldwater culture course

(Continued on page 6)

Idaho Fish and Wildlife Conservation Office

(Continued from page 5)

Aquatic Conservation Team

Attended the Upper Salmon River Technical Team Meeting.

Reviewed the draft range-wide Redband Trout Conservation Plan.

Coordinated with Idaho Panhandle National Forest staff for Redband trout sampling in summer 2016.

Worked on a report to the Lamprey Conservation Team for the Lamprey Technical Work Group Passage Standards subgroup.

Worked on the Lamprey Mainstem Regional Implementation Plan.

Attended the Regional Pacific Lamprey Conservation Team meeting. Presented the Snake River Regional Implementation Plan to the Team.

Attended the Lamprey Technical Workgroup Meeting.

Attended the Redband Trout Conservation Strategy workgroup meeting in Portland.

Worked with Leadore School District on their School Garden Project, to be partially funded with Partners for Fish and Wildlife funds

Worked on PL RIP spreadsheets for Snake River and Mainstem RMUs

Participated in the NWR-Climate Change monitoring conference call.

Worked on data summaries for Myrtle Creek monitoring.

Attended Basic Financial Assistance Training (Brostrom)

Prepared for Pollinator Week Activities for Saturday Farmers Market (loaded tables and materials, milkweed plants grown for to distribute by donation)

Fall Chinook Salmon Research Team

The weekly activities for Billy Connor and Frank Mullins were as follows.

Analyzed data on migration timing and rate of Snake River fall Chinook salmon adults.

Completed a quarterly report to BPA on PISCES as well as other miscellaneous activities associated with project management.

Coordinated Adaptive Implementation Plan modeling activities with the USGS.

Discussed fall Chinook salmon issues with Jay Hesse of the Nez Perce Tribe Department of Fisheries Resources Management.

Received feedback from NOAA coauthors on the summer flow augmentation section of the developing five-part monograph.

(Continued on page 7)



Credit: Brostrom, FWS

2016 Pollinator Week
Farmers Market
Lemhi County, ID



Credit: Brostrom, FWS

Leadore Elementary School
Monarch class projects.



Credit: Brostrom, FWS

A field tour with the Upper
Salmon Basin Tech Team
at the Upper East Fork
Salmon River

Fall Chinook Salmon Research Team

(Continued from page 6)

Connor was asked by the Mid-Columbia Subyearling Chinook salmon passage survival work group to be an opening speaker at the coordination meeting at SeaTAC on June 21. That group is striving to conduct survival studies in the mid-Columbia and includes representatives from NMFS, WDFW, and PUDs from Chelan, Douglas, and Grant counties. Connor spent the week summarizing research publications and data from 1992 through 2016 in preparation for the presentation. Connor also attended a meeting held among Howard Schaller, Steve Rodgers, and staff of the IFWCO.

Connor traveled to and from SeaTAC to be an opening speaker at the coordination meeting of the mid-Columbia subyearling survival coordinators. He also worked on estimating passage abundance of natural-origin fall Chinook salmon at Lower Granite during November through June.

Mullins participated in the 2016 beach seining season in cooperation with the USGS.

Idaho Fish Health Center - Blair

June 2016

Dworshak NFH

Steelhead juveniles: Three tanks in the nursery were examined on three different occasions due to increased mortality. On all occasions it appeared that the mortality was mainly pinhead dropouts. *Pseudomonas fluorescens* was detected in 1 out of 5 bacteriology samples taken from tank 614 but only at a moderate level. Mortality is being monitored.

Spring Chinook juveniles: A monitoring exam was conducted on 8 June 2016. All mortalities were low, except in A4 and A6 which were slightly elevated (~40-70 fish/day). Minor swelling at tips of lamellae, minor debris and algae, and low level of *Epitheliocystis* around but not encysted in gills were noted from both raceways. Recommendations were to continue to keep tanks clean and monitor for mortality increases. Mortality has remained low and stable through the end of month.

Coho juveniles: The first monthly monitoring program since the coho were moved into the outside tanks was conducted on 1 July 2016. Bacterial gill was found in the semi-circular tanks. A chloramine T treatment was recommended. It was also recommended to cut back on the feed to minimize the uneaten portions in the tanks and to thoroughly clean all tanks.

Kooskia NFH

Spring Chinook juveniles: Kooskia spring Chinook were examined on June 22 for a routine monitoring visit. Low levels of debris/algae were seen in the gills. As a result, production began vacuuming when cleaning to reduce accumulation of debris in the ponds.

Kooskia National Fish Hatchery - Hills

This activity report is implemented by the Tribal Fish Hatchery Manager, Kent Hills. All information in this report was collected and or performed by the hatchery staff during the preceding month.

Under SRBA and the Clearwater Annual Operating Plan, the Tribe, Service and Idaho Fish & Game have agreed to implement other fish production actions related to KNFH mitigation. Reports will include additional information about other species reared, processed and released in relation to KNFH operations.

Kooskia Chinook Brood Year 2015

There are 749,951 fry on station; we have had a mortality this month of 1,542, high mortality due to moving fish from rearing tanks to Burrows ponds. They are on well water at 49 degrees. The fish are an average of 2.65 inches (67mm) long and have a total weight of 4,205 pounds. Idaho Fish Health Center was out the last of the month and evaluated fry in the burrows ponds. No internal abnormalities were found, gills showed low levels of debris, most likely due to algae in the ponds and low levels of *Sanguinicola*. Fish Health recommendation was to continue to keep ponds as clean as possible.

Kooskia Adult Trap Operations:

The trap was closed on the weekends to help improve tribal fishing on Clear Creek and reopened on Monday through Friday evening. A total of 1,396 Chinook were removed from the trap in the month of June. 391 hatchery males, 439 hatchery females, 33 hatchery jacks and 1 jill were transported to Dworshak for broodstock. A total of 58 wild males, 35 wild females and 3 jacks were released into Clear Creek above the weir for natural spawning. A total of 157 hatchery males, 197 hatchery females and 1 jill were transported to Clearwater Hatchery for brood stock. Nez Perce Tribal subsistence received 36 hatchery jacks and 1 hatchery jill, 41 hatchery jacks went to the Kamiah Food Bank. We had 3 female mortality's that were sent to the landfill and 3 jacks were released at the Kamiah boat ramp for the month.

Maintenance & Operations:

Jun 01: 134 Chinook were removed from the trap. 64 were hatchery males, 52 were hatchery females and 6 were hatchery jacks, all hatchery fish were transported to Dworshak for broodstock. There were also 9 wild males and 3 wild females, these released into Clear Creek above the weir.

Jun 03: A total of 293 Chinook were removed from the trap. 135 were hatchery males, 131 were hatchery females and 13 were hatchery jacks, all hatchery fish were transported to Dworshak for broodstock. There were also 12 wild males and 2 wild females, all wild fish were released into Clear Creek above the weir.

Jun 04: A total of 160 Chinook were removed from the trap, all were hatchery fish

(Continued on page 9)



Credit: Olson, FWS

Adipose fin clipping in the USFWS marking trainer.



Credit: Olson, FWS

Carrie Bretz, IFWCO Biologist continues to check for CWT retention before fingerlings are released to outdoor rearing units.



Credit: Olson, FWS

Kooskia NFH - Hills

(Continued from page 8)

Maintenance & Operations (continued):

and were transported to Dworshak for broodstock 75 males, 71 females and 14 jacks.

- Jun 05:** The trap was burglarized last night, unknown suspects pried the north dam boards up breaking the screws holding them in place. There were still fish in the trap but it is unknown how many were stolen. New boards were cut and new screws were installed vertically so all the dam boards would have to be broken for entry.
- Jun 07:** A total of 126 Chinook were removed from the trap, 34 were hatchery males, 86 were hatchery females. These fish were all transported to Dworshak for brood stock. We had 4 wild males and 2 wild females, these fish were released into Clear Creek above the weir for natural spawning.
- Jun 09:** A total of 329 Chinook were removed from the trap, 94 hatchery males and 106 hatchery females were transported to Clearwater Hatchery for brood stock. Dworshak received 49 hatchery males and 46 hatchery females because they had CWT's these fish will be used for brood. Wild fish totaled 19 males and 12 females and were released into Clear Creek above the weir for natural spawning. We had three mortalities, 2 hatchery females and 1 wild female.
- Jun 10:** A total of 50 Chinook were removed from the trap, 37 were hatchery jacks which were killed for Nez Perce subsistence, 7 wild males, 4 wild females and 2 wild jacks. All wild fish were transported and released into Clear Creek above the weir.
- Jun 13:** BY15 fry were moved from the rearing tanks to the burrows pond. Populations are as follows: **BP1**-109,803, **BP2** - 118,666, **BP3**-117,889, **BP4** -116,793, **BP5**-143,183, **BP6** -145,159 **Total 751,493**
- Jun 16:** A total of 146 Chinook were removed from the trap, 40 hatchery males, 57 hatchery females and 1 hatchery Jill were transported to Clearwater hatchery for brood stock; 14 hatchery males and 22 hatchery females were transported to Dworshak for brood stock. Total wild fish of 12, 6 wild males and 6 wild females, were transported and released into Clear Creek above the weir.
- Jun 21:** Staff performed yard work on Quarters 3, it has been unoccupied since early May when Art resigned to work for NEPTC. The marking trailer arrived.
- Jun 22:** Guppie from Fish Health did her monthly inspection of BY15; she indicated the gills are looking better than last month but still showing some debris. The fish are now big enough to begin vacuuming the Ponds as opposed to sweeping, this will reduce the amount of debris in the water and should correct the problem.
- Jun 23:** A total of 49 Chinook were removed from the trap, 9 were hatchery males, 11 were hatchery females. These fish were transported to Dworshak for brood stock. There were also 27 hatchery jacks which went to the Kamiah Food Bank. There was 1 wild female and 1 wild jack which were released into Clear Creek above the weir. 10 barrels of formalin were transported to Dworshak for treatment of Kooskia adult Chinook.
- Jun 29:** A total of 99 Chinook were removed from the trap, 8 hatchery males and 14 hatchery females were transported to Dworshak for brood stock, 23 Hatchery males and 34 hatchery females were transported to Clearwater Hatchery for broodstock and 14 hatchery jacks went to the Kamiah Food Bank. Wild fish were moved from the trap 3 wild males and 3 wild females were released into Clear Creek above the weir for natural spawning.

Kooskia NFH Training and conferences:

- June 02:** Project leaders meeting at Dworshak.
- June 09:** Regional Project Leaders meeting.
- June 13:** FWS Project Leaders call.
- June 14:** Meeting with McMillan on the Clearwater intake for Kooskia.

Information and Education

Dworshak - Jill Olson

Facebook: Reach - 5,907; Engagements— 409 **Website:** Page Loads -132; Unique - 107; First Time - 84; Returning - 23

Visitors: 221 visitors signed in from 20 states, China & Mexico **Tours:** We guided 13 tours for 129 adults and 77 kids.

Outreach: We were involved in four outreach events. These events included two days of Hatchery in the Classroom steelhead fry release activities at Spalding Park in Lapwai; a second Veteran's Fishing Day with Idaho State Veteran's Home meeting us at Tunnel Pond in Orofino, and a fun day of fishing and crafts with Cavendish Elementary School students at Tunnel Pond. The educational games, fishing fun, and crafts enabled us to reach out to 395 students and 92 adults!

Volunteer Hours: Seven volunteers put in 67.75 hours during the month of June. Most activities were for Outreach. The Idaho Youth Challenge Cadets completed their last day of service for the Spring session on June 3, contributing 48 hrs.

Kooskia - Kent Hills

Visitors: There were 542 visitors to the hatchery during this month; this figure is compiled by staff. Lots of tourists and fishermen stopping by to look at adult salmon.



Credit: Olson, FWS

Let's Go Outside!

Experience Nature

http://www.fws.gov/pacific/experience_nature/

Dworshak Fisheries Complex Management:

Steve Rodgers, Dworshak Fisheries Complex Manager

Mark Drobish, Dworshak NFH Manager

Adam Izbicki (FWS) & Jeremy Sommer (NPT)
Dworshak NFH Assistant Hatchery Managers

Mike Tuell, SRBA Coordinator

Scott Koehler, Dworshak NFH Maintenance Supervisor

Vacant, Project Leader, Idaho Fish and Wildlife
Conservation Office

Mike Faler, Aquatic Conservation Lead

Dr. William Conner, Fall Chinook Research Lead

Dr. Chris Peery, Fish Production M&E Lead

Kent Hills, Kooskia NFH Manager

Gerry Fogelman, Kooskia NFH Maintenance Supervisor

Staff List

Dworshak NFH Production: Angela Feldmann, Tom Tighe, Rob Bohn, Wayne Hamilton, Mike Bisbee, Tui Moliga, Steve Coomer, Carter Lopez, Zach Broncheau, Jayden Hudson, Steve Jeffers, Jayson Thompson, Aidan Frye

Administration: Heather Leopard- Administrative Officer, Brian Devin- Budget Technician,

Dworshak NFH Maintenance:

Terry Weeks, Rick King, Rob Kellar, James Oatman, James Paddelty, Melissa Wright

Idaho Fish and Wildlife Conservation Office:

Ray Jones, Aaron Garcia, Carrie Bretz, Frank Mullins, Jody Brostrom, Chris Griffith

Complex Information and Education: Jill Olson

Kooskia NFH: Kenny Simpson,